Original / Duplicate / Triplicate

CONTRACT CERTIFICATE

No. 1st & Part bill (For Other Works) Date.....20.....

Division: Yelahanka Project Division,
Bill Received No.....Dated.....Cash Book Voucher No.....dated.....
Scheduled Docket No.....

Name of Work:. Improvements and Development and widening of road from National Highway to Railway Line via Nitte Meenakshi College Road till BBMP Limits.

Job Code No:001-21-000020 P_3856

Name of Contractor and Full Address : M/s SLP Infra Engineers Pvt Ltd

Work Order No: EE(Project)/Ynk Zone/WO/17/2021-22 Dt:- 25-08-2021

Certified that the measurements were taken by me on 23/12/2021 and recorded in pages 220237 to 220240 of measurement Book No. 08/2018-19 and that the work is satisfactorily executed.

Contractor

Officer-in-charge of work

Certified that the measurements were taken by me on 23/12/2021 and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account II have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of an imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Sub-Division Officer

Assist. Executive Engineer
Project Division
Yelahanka Zone
BBMP, Bangalore - 92

If Memorandum of Payment

1)	Total value of work done or supplies made as per account within	Gross bill 29208700
2)	Deduct amount to be held in reserve being.....percent Rs.....	
3)	Deduct amount to be held in Balance	Deduction 584174
4)	Deduct Payment :	
	a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D No.....	CW 292087
	Amount adjusted towards cash advance recovery of	CBF 29209
	b) Payments cost store or other materials supplied.	Cust 260792
	Now made recovery of amount creditable to this/other work	Cust 260792
	Amount paid on this bill Cheque/Cash	Royalty 288591
5)	Balance being unpaid value of work done held in reserve	
6)	Deduct cash advance made on the office Cash Book Voucher No..... date .....less adjustments	Total deduct 1715645
7)	Net amount due to or from contractor	Net payable 27493055
	Unadjusted items	
8)	Advance to contractor for materials brought to site (as detailed) within value of Governme materials supplied	

Contractor's Signature

Received Rs.....(in words)
By Cash and by adjustment of Payment as per memorandum.
Witnesses :
1.

(For use in the Office)

2.-

Audited & Admitted for Rs.....
Rs 29208700/-

Dated.....Signature of Contractor

Rs 27493055/- by Cheque

Paid by me by cheque No.....Dated and Rs. 1715645/- by Adjustment

Cash Rs.....Dated.....

Accts. Supdt. 23/12/22
Project Division
B.B.M.P.

Exe. Engineer
Project Division
B.B.M.P.

Initials of Officer Making Payment

Executive Engineer

Improvements and Development and widening of road from National Highway to Railway Line via Nitte Meenakshi College Road till BBMP Limits

ABSTRACT

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
			Qty	Rate	Amount	Qty	Amount	Qty	Rate	Amount	Qty	Amount
1	KSRRB 200-9. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of thorney jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications.	Sqm	32695.00	15.61	510377.12	–	–	4351.64	15.61	67930.19	4351.64	67930.19
2	KSRRB M200-15.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry. A. Rubble Stone masonry in lime mortar. MORTH Specification No. 202.	Cum	1260.00	309.45	389907.32	–	–	639.03	309.45	197747.99	639.03	197747.99
3	Dismantling burnt brick masonry in clay mortar/lime mortar/cement mortar and stacking the bricks within a radius of 50m and removing the debris to a distance upto 200m.	Cum	720.00	264.46	190408.32	–	–	399.94	264.46	105766.00	399.94	105766.00
4	Removing B.S. slab of Drain and stacking.	Sqm	3240.00	105.60	342139.95	–	–	567.70	105.60	59948.41	567.70	59948.41
5	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete asper specifications.	Cum	6600.48	212.12	1400065.77	–	–	5041.35	212.12	1069348.89	5041.35	1069348.89
6	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications.	Cum	956.76	5476.44	5239641.60	–	–	647.31	5476.44	3544972.75	647.31	3544972.75
7	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm	Cum	1952.44	7141.23	13942809.31	–	–	1195.72	7141.23	8538893.98	1195.72	8538893.98

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
8	KSRRB M2200-6. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification.	MT	134.51	65702.62	8837436.57	_	_	92.03	65702.62	6046564.85	92.03	6046564.85
9	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge.	Sqm	4527.00	2360.82	10687435.54	_	_	2564.37	2360.82	6054017.91	2564.37	6054017.91
10	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge.	Sqm	72.00	5472.77	394039.44	_	_	72.00	5472.77	394039.44	72.00	394039.44
11	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications.	Cum	12325.50	59.69	735662.87	_	_	—	59.69	0.00	0.00	0.00
12	KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density).	Cum	16599.00	348.02	5776730.03	_	_	—	348.02	0.00	0.00	0.00
13	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications.	Sqm	12575.00	41.32	519614.72	_	_	—	41.32	0.00	0.00	0.00
14	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.	Sqm	40240.00	6.43	258652.66	_	_	—	6.43	0.00	0.00	0.00
15	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.	Cum	7243.20	2014.64	14592444.07	_	_	—	2014.64	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
16	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.	Cum	10060.00	2021.07	20331946.60	_	_	—	2021.07	0.00	0.00	0.00
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.	Sqm	36216.00	30.30	1097426.29	_	_	—	30.30	0.00	0.00	0.00
18	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen.	Cum	1810.80	6471.83	11719182.52	_	_	—	6471.83	0.00	0.00	0.00
19	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per	sqm	36216.00	12.86	465574.79	_	_	—	12.86	0.00	0.00	0.00
20	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using – do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)	Cum	1448.64	7613.21	11028801.62	_	_	—	7613.21	0.00	0.00	0.00
21	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications.	Cum	226.35	5805.18	1314001.70	_	_	—	5805.18	0.00	0.00	0.00
22	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications.	Cum	452.70	214.87	97271.88	_	_	—	214.87	0.00	0.00	0.00
23	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete	Nos	22356.00	437.09	9771516.97	_	_	—	437.09	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
24	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.	Sqm	4024.00	85.40	343638.53	–	–		85.40	0.00	0.00	0.00
25	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as	Sqm	1886.25	459.13	866024.53	–	–		459.13	0.00	0.00	0.00
26	KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications.	Nos	2156.00	360.87	778040.57	–	–		360.87	0.00	0.00	0.00
27	Supply and fixing of Retro Reflective Single Arrow Road Name Signboard of size 1600mm x 900mm made out of retro reflective sheeting conforming to Type XI standards of ASTM D 4956 - 09 & as per IRC 67-2012 for full back ground of blue colour & white letters and fixed over 4 mm thick Aluminium Composite Material sheet having minimum 0.5 mm thick Aluminium skin on both sides with back side painted grey colour and fixed over back support frame SS angle of 15mm x 20mmx 1.2mm, supported by 38mm OD stainless steel pipe all round in 304 grade and 2 nos of vertical posts of 50 mm OD stainless steel pipe of 202 grade firmly fixed to the ground by means of properly designed foundation of size 450mm x 450mm x 600mm in 1:1.5:3 ratio cement concrete. The background shall be blue in color with letters and border in white, the item includes earthwork excavation, cost of all materials, loading, unloading, lead, lift, transportation etc., complete. as per direction of engineer incharge of work clause 6.9 of IRC 67-2012 for Type XI retro reflective sheeting from the sheeting manufacturer & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 including outdoor weather exposure report for the retro reflective sheeting offered shall be submitted by the contractor for technical qualification in the tender.	Sqm	7.20	14236.55	102503.15	–	–		14236.55	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
28	K5RRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, supply and installation of retro- reflectorised cautionary, mandatory and informatory signboards made out of cu`be corner micro prismatic grade sheeting confirming to 900 MM octagon stop board type XI standards of IRC :67:2012 specifications & fixed over 4 mm thick aluminium composite panel sheet having minimun 0.30 thick aluminium skin on both sides & fixed over a support frame of 25x25x3 mm MS angle and mounted on 75mm dia OR 75x75x6mm Mild steel angle of total height 2.70m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60 cm below ground level. The sign post should be painted with one coat of red oxide paint and white colour with brands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45 cm x45 cm x 60 cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by engineer in charge. 10 years warranty for retro reflective sheeting from the original sheeting manufacturer as per clause 6.9 in IRC 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.-900 MM octagon stop board type XI (P.No.180, I.No.24.2.6 of PW,P&IWTD SR 2018-19)	Nos	8.00	5403.90	43231.21	–	–		5403.90	0.00	0.00	0.00
29	Retro-Reflectorised Traffic Signs Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing. (Standard data Book data) 900 MM Equilateral triangle - TYPE XI	Nos	10.00	3697.79	36977.93	–	–		3697.79	0.00	0.00	0.00
30	Fabricating, supplying and erection of ...Mtrs long hot dip Galvanized Octagonal pole with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. 7 meters - Top 70mm and bottom 130mm dia.	Nos	80.00	11040.12	883209.58	–	–		11040.12	0.00	0.00	0.00
31	Double Arm Bracket with 1500mm Standard 40/50MM dia	Nos	80.00	3146.84	251747.42	–	–		3146.84	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
32	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB.LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier	Nos	160.00	9228.41	1476546.00	–	–	—	9228.41	0.00	0.00	0.00
33	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete.16SWG	Sqcm	60000.00	0.37	22038.00	–	–	—	0.37	0.00	0.00	0.00
34	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.40x40x6mm	Nos	16.00	258.03	4128.45	–	–	—	258.03	0.00	0.00	0.00
35	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics)FOUR POLE 100Amps 25kA.	Nos	2.00	6464.48	12928.96	–	–	—	6464.48	0.00	0.00	0.00
36	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.40 Amps DP	Nos	4.00	1349.83	5399.31	–	–	—	1349.83	0.00	0.00	0.00
37	Supplying and Fixing of. mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe	Nos	12.00	843.87	10126.46	–	–	—	843.87	0.00	0.00	0.00
38	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm	m	2900.00	151.51	439382.63	–	–	—	151.51	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
39	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 3.5 core 35 sqmm	m	200.00	227.73	45545.20	_	_		227.73	0.00	0.00	0.00
40	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.6 sqmm to 16 sqmm.	m	2900.00	11.94	34618.03	_	_		11.94	0.00	0.00	0.00
41	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. 25 sqmm to 75 sqmm P.41/I.6.5.2	m	200.00	15.61	3122.05	_	_		15.61	0.00	0.00	0.00
42	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)In soil (ordinary).	m	2500.00	78.05	195128.13	_	_		78.05	0.00	0.00	0.00
43	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.1.5 sqmm.	m	2600.00	21.12	54911.35	_	_		21.12	0.00	0.00	0.00
44	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.10 sqmm.	m	40.00	116.62	4664.71	_	_		116.62	0.00	0.00	0.00
45	Providing Rcc Pole pedstal of Size 0.5x0.5x1.6 Mtrs Including digging of pit, tor steel, anchoring bolts nuts ,templates ,Centring,1;4;8base concrete,1;2;4pedestal concrete and etc coplete as per the data sheet enclosed 18	Nos	80.00	4259.00	340720.00	_	_		4259.00	0.00	0.00	0.00
46	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia	Nos	2.00	3050.00	6100.00	_	_		3050.00	0.00	0.00	0.00

Sl No	Description of Work	Unit	As per Shedule -B			Previous measurement		Present Measurement			Up to date	
47	Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.Three Phase	Nos	2.00	52300.00	104600.00	–	–	—	52300.00	0.00	0.00	0.00
48	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.35Sqmm	Nos	2.00	337.09	674.17	–	–	—	337.09	0.00	0.00	0.00
	Total				**125709094.00**					**26079230.41**		**26079230.41**
	GST 12%				**15085091.28**					**3129507.65**		**3129507.65**
	Grand Total				**140794185.28**					**29208738.06**		**29208738.06**

2,92,08,738/- 2,92,08,738/-

CERTIFICATE

1 Certified that the work done is satisfactorily.

2 There is no departmental issues by BBMP

NEWZEN CONSULTANT Bangalore

Contractor | Consultants | Assistant Engineer | Asst. Executive Engineer

Ramasangeerval